Paul R Amyotte

List of Publications by Year
in descending order

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157
papers

7,795
citations

47006
47
h-index

56724
83
g-index

164
all docs

164
docs citations

164
times ranked

2763
citing authors

#	Article	IF	Citations
1	Insight into the dust explosion hazard of pharmaceutical powders in the presence of flow aids. Journal of Loss Prevention in the Process Industries, 2022, 74, 104655.	3.3	9
2	Effect of inclination angle on fire hazard of melting dust layers. Chemical Engineering Research and Design, 2022, 160, 620-631.	5.6	9
3	Investigating the explosion hazard of hydrogen produced by activated aluminum in a modified Hartmann tube. International Journal of Hydrogen Energy, 2022, 47, 15933-15941.	7.1	7
4	Opposite effects of typical solid inertants on flame propagation in Mg dust clouds versus dust layers. Fuel, 2022, 324, 124394.	6.4	12
5	Experimental study on the minimum ignition energy of cornstarch particle-air flows in a horizontal pipeline. Journal of Loss Prevention in the Process Industries, 2022, 79, 104842.	3.3	5
6	Effects of dust dispersibility on the suppressant enhanced explosion parameter (SEEP) in flame propagation of Al dust clouds. Journal of Hazardous Materials, 2021, 404, 124119.	12.4	21
7	Process safety concerns in process system digitalization. Education for Chemical Engineers, 2021, 34, 33-46.	4.8	41
8	Inherently safer design protocol for process hazard analysis. Chemical Engineering Research and Design, 2021, 149, 199-211.	5.6	24
9	The role of inherently safer design in process safety. Canadian Journal of Chemical Engineering, 2021, 99, 853-871.	1.7	40
10	Hierarchy of controls in Contra Costa Health Services (CCHS) incident investigations. Process Safety Progress, 2021, 40, 375.	1.0	0
11	Friction spark generation and incendivity of several metal alloys. Journal of Loss Prevention in the Process Industries, 2021, 70, 104406.	3.3	6
12	Numerical modelling of the effects of vessel length-to-diameter ratio (L/D) on pressure piling. Journal of Loss Prevention in the Process Industries, 2021, 70, 104398.	3.3	6
13	Fire hazard potential of non-metallic powder layers induced by deposit surfaces. Fire Safety Journal, 2021, 122, 103365.	3.1	15
14	Pandemic risk management using engineering safety principles. Chemical Engineering Research and Design, 2021, 150, 416-432.	5.6	11
15	Application of bow tie analysis and inherently safer design to the novel coronavirus hazard. Chemical Engineering Research and Design, 2021, 152, 701-718.	5.6	10
16	Data-driven operational failure likelihood model for microbiologically influenced corrosion. Chemical Engineering Research and Design, 2021, 153, 472-485.	5.6	17
17	Bayesian Stochastic Petri Nets (BSPN) - A new modelling tool for dynamic safety and reliability analysis. Reliability Engineering and System Safety, 2020, 193, 106587.	8.9	60
18	Moderation of Al dust explosions by micro- and nano-sized Al2O3powder. Journal of Hazardous Materials, 2020, 381, 120968.	12.4	71

#	ARTICLE	IF	CITATIONS
19	What went right. Chemical Engineering Research and Design, 2020, 135, 179-186.	5.6	13
20	Effect of admixed solid inertants on dispersibility of combustible dust clouds in a modified hartmann tube. Chemical Engineering Research and Design, 2020, 135, 1-11.	5.6	20
21	Role of particle diameter in laminar combustion regimes for hybrid mixtures of coal dust and methane gas. Powder Technology, 2020, 362, 399-408.	4.2	12
22	Effect of admixed silica on dispersibility of combustible dust clouds in a Godbert-Greenwald furnace. Powder Technology, 2020, 374, 496-506.	4.2	16
23	Introducing a new journal feature: The Trevor Kletz & Sam Mannan Guest Perspective on Process Safety. Journal of Loss Prevention in the Process Industries, 2020, 66, 104221.	3.3	0
24	How can process safety and a risk management approach guide pandemic risk management?. Journal of Loss Prevention in the Process Industries, 2020, 68, 104310.	3.3	17
25	Inherently safer design principles in risk management. Methods in Chemical Process Safety, 2020, 4, 379-440.	1.0	7
26	Investigation of the explosion severity of multiphase hybrid mixtures. Process Safety Progress, 2020, 39, e12139.	1.0	8
27	Characterization of Ti powders mixed with TiO2 powders: Thermal and kinetic studies. Journal of Loss Prevention in the Process Industries, 2020, 66, 104184.	3.3	11
28	Precautionary Principle (PP) versus As Low As Reasonably Practicable (ALARP): Which one to use and when. Chemical Engineering Research and Design, 2020, 137, 158-168.	5.6	17
29	Advanced methods of risk assessment and management: An overview. Methods in Chemical Process Safety, 2020, , 1-34.	1.0	17
30	Maintenance: Preparation and performance. , 2019, , 39-96.		0
31	Case histories and their use in enhancing process safety knowledge. , 2019, , 3-17.		0
32	Bhopal. , 2019, , 19-29.		0
33	Reactionsâ€"Planned and unplanned. , 2019, , 417-434.		0
34	Explosions. , 2019, , 435-456.		0
35	I did not knowâ€¦. , 2019, , 477-502.		0
36	Accident investigationâ€"Missed opportunities. , 2019, , 523-535.		0

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37	Inherently safer design. , 2019, , 565-581.		0
38	Iron and aluminum powder explosibility in 20-L and 1-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:msup><mml:mrow><mml:mtext>m</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:m chambers. Journal of Loss Prevention in the Process Industries, 2019, 62, 103927.	3.3	30
39	Effect of solid inertants and sample inclination angle on fire hazard of metallic powder layers. Chemical Engineering Research and Design, 2019, 129, 321-325.	5.6	19
40	Niacin, lycopodium and polyethylene powder explosibility in 20-L and 1-m3 test chambers. Journal of Loss Prevention in the Process Industries, 2019, 62, 103937.	3.3	15
41	Role of particle diameter in the lower flammability limits of hybrid mixtures containing coal dust and methane gas. Journal of Loss Prevention in the Process Industries, 2019, 61, 206-212.	3.3	10
42	Ignition hazard of titanium powder clouds exposed to hotspots. Journal of Loss Prevention in the Process Industries, 2019, 60, 106-115.	3.3	11
43	A bibliometric review of process safety and risk analysis. Chemical Engineering Research and Design, 2019, 126, 366-381.	5.6	111
44	Experimental and theoretical investigation of the lower explosion limit of multiphase hybrid mixtures. Process Safety Progress, 2019, 38, e12045.	1.0	4
45	Experimental investigation of limiting oxygen concentration of hybrid mixtures. Journal of Loss Prevention in the Process Industries, 2019, 57, 120-130.	3.3	16
46	Ignition hazard of non-metallic dust clouds exposed to hotspots versus electrical sparks. Journal of Hazardous Materials, 2019, 365, 895-904.	12.4	19
47	Effect of admixture of solid inertant on fire hazard of dust layers oriented at varying degrees of inclination. Journal of Loss Prevention in the Process Industries, 2019, 57, 41-46.	3.3	18
48	How to address model uncertainty in the escalation of domino effects?. Journal of Loss Prevention in the Process Industries, 2018, 54, 49-56.	3.3	34
49	Effect of sample orientation on fire hazard of non-metallic dust layers exposed to electric sparks. Journal of Loss Prevention in the Process Industries, 2018, 54, 229-237.	3.3	13
50	Laminar burning velocity and structure of coal dust flames using a unity Lewis number CFD model. Combustion and Flame, 2018, 190, 87-102.	5.2	30
51	Fire hazard of titanium powder layers mixed with inert nano TiO2 powder. Journal of Hazardous Materials, 2018, 346, 19-26.	12.4	26
52	Laminar combustion regimes for hybrid mixtures of coal dust with methane gas below the gas lower flammability limit. Combustion and Flame, 2018, 198, 14-23.	5.2	17
53	Chemical safety board investigation reports and the hierarchy of controls: Round 2. Process Safety Progress, 2018, 37, 459-466.	1.0	15
54	Lower flammability limits of hybrid mixtures containing 10 micron coal dust particles and methane gas. Chemical Engineering Research and Design, 2018, 120, 215-226.	5.6	26

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55	Electric spark ignition sensitivity of nano and micro Ti powder layers in the presence of inert nano TiO 2 powder. Journal of Loss Prevention in the Process Industries, 2017, 46, 84-93.	3.3	20
56	Evaluating regime diagrams for closed volume hybrid explosions. Journal of Loss Prevention in the Process Industries, 2017, 49, 912-918.	3.3	16
57	Elements of Process Safety Management. Methods in Chemical Process Safety, 2017, , 87-148.	1.0	13
58	Why major accidents are still occurring. Current Opinion in Chemical Engineering, 2016, 14, 1-8.	7.8	48
59	Dynamic risk management: a contemporary approach to process safety management. Current Opinion in Chemical Engineering, 2016, 14, 9-17.	7.8	129
60	Retrospective risk analysis and controls for Semabla grain storage hybrid mixture explosion. Chemical Engineering Research and Design, 2016, 100, 49-64.	5.6	22
61	Domino effect analysis of dust explosions using Bayesian networks. Chemical Engineering Research and Design, 2016, 100, 108-116.	5.6	64
62	Major Accidents (Gray Swans) Likelihood Modeling Using Accident Precursors and Approximate Reasoning. Risk Analysis, 2015, 35, 1336-1347.	2.7	20
63	An exploratory study of explosion potential of dust from torrefied biomass. Canadian Journal of Chemical Engineering, 2015, 93, 658-663.	1.7	5
64	Dust explosions: A threat to the process industries. Chemical Engineering Research and Design, 2015, 98, 57-71.	5.6	167
65	Risk assessment of rare events. Chemical Engineering Research and Design, 2015, 98, 102-108.	5.6	50
66	Operational risk assessment: A case of the Bhopal disaster. Chemical Engineering Research and Design, 2015, 97, 70-79.	5.6	45
67	Risk-based optimal safety measure allocation for dust explosions. Safety Science, 2015, 74, 79-92.	4.9	40
68	Risk Analysis of Dust Explosion Scenarios Using Bayesian Networks. Risk Analysis, 2015, 35, 278-291.	2.7	85
69	Risk Management of Domino Effects Considering Dynamic Consequence Analysis. Risk Analysis, 2014, 34, 1128-1138.	2.7	73
70	Minimum ignition temperature of nano and micro Ti powder clouds in the presence of inert nano TiO2 powder. Journal of Hazardous Materials, 2014, 275, 1-9.	12.4	46
71	Minimum ignition energy of nano and micro Ti powder in the presence of inert nano TiO2 powder. Journal of Hazardous Materials, 2014, 274, 322-330.	12.4	40
72	Some myths and realities about dust explosions. Chemical Engineering Research and Design, 2014, 92, 292-299.	5.6	95

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73	Risk-based process plant design considering inherent safety. Safety Science, 2014, 70, 438-464.	4.9	84
74	A model to assess dust explosion occurrence probability. Journal of Hazardous Materials, 2014, 268, 140-149.	12.4	22
75	Dynamic approach to risk management: Application to the Hoeganaes metal dust accidents. Chemical Engineering Research and Design, 2014, 92, 669-679.	5.6	68
76	Industry specific dust explosion likelihood assessment model with case studies. Journal of Chemical Health and Safety, 2014, 21, 13-27.	2.1	8
77	Determination of human error probabilities in maintenance procedures of a pump. Chemical Engineering Research and Design, 2014, 92, 131-141.	5.6	66
78	Influence of liquid and vapourized solvents on explosibility of pharmaceutical excipient dusts. Process Safety Progress, 2014, 33, 374-379.	1.0	10
79	Domino Effect Analysis Using Bayesian Networks. Risk Analysis, 2013, 33, 292-306.	2.7	204
80	Myth No. 4 (Fuel). , 2013, , 39-50.		0
81	Myth No. 14 (Confinement). , 2013, , 167-180.		0
82	Myth No. 2 (Fuel). , 2013, , 17-29.		1
83	Myth No. 18 (Pentagon). , 2013, , 207-218.		0
84	Myth No. 1 (Fuel). , 2013, , 9-16.		0
85	Myth No. 6 (Fuel/Ignition Source). , 2013, , 65-75.		0
86	Explosibility of polyamide and polyester fibers. Journal of Loss Prevention in the Process Industries, 2013, 26, 1627-1633.	3.3	21
87	Process safety educational determinants. Process Safety Progress, 2013, 32, 126-130.	1.0	16
88	An optimal level of dust explosion risk management: Framework andÂapplication. Journal of Loss Prevention in the Process Industries, 2013, 26, 1530-1541.	3.3	29
89	An integrated approach for fire and explosion consequence modelling. Fire Safety Journal, 2013, 61, 324-337.	3.1	76
90	Analyzing system safety and risks under uncertainty using a bow-tie diagram: An innovative approach. Chemical Engineering Research and Design, 2013, 91, 1-18.	5.6	166

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91	Dynamic safety analysis of process systems by mapping bow-tie into Bayesian network. Chemical Engineering Research and Design, 2013, 91, 46-53.	5.6	429
92	Explosibility of micron- and nano-size titanium powders. Journal of Loss Prevention in the Process Industries, 2013, 26, 1646-1654.	3.3	76
93	Modelling of the effect of size on flocculent dust explosions. Journal of Loss Prevention in the Process Industries, 2013, 26, 1634-1638.	3.3	19
94	Risk-Based Design of Safety Measures To Prevent and Mitigate Dust Explosion Hazards. Industrial & Engineering Chemistry Research, 2013, 52, 18095-18108.	3.7	33
95	Quantifying the effect of strong ignition sources on particle preconditioning and distribution in the 20-L chamber. Journal of Loss Prevention in the Process Industries, 2013, 26, 1574-1582.	3.3	14
96	A quantitative risk management framework for dust and hybrid mixture explosions. Journal of Loss Prevention in the Process Industries, 2013, 26, 283-289.	3.3	31
97	Quantitative risk analysis of offshore drilling operations: A Bayesian approach. Safety Science, 2013, 57, 108-117.	4.9	309
98	Risk-based design of process systems using discrete-time Bayesian networks. Reliability Engineering and System Safety, 2013, 109, 5-17.	8.9	114
99	Overpressure Effects. , 2013, , 43-69.		2
100	Myth No. 12 (Mixing). , 2013, , 139-154.		0
101	Missile Projection Effects. , 2013, , 116-153.		1
102	Managing Domino Effects from a Design-Based Viewpoint. , 2013, , 246-271.		2
103	Myth No. 8 (Ignition Source). , 2013, , 91-100.		0
104	Myth No. 5 (Fuel). , 2013, , 51-63.		0
105	Happy 90th birthday, Trevor!. Journal of Loss Prevention in the Process Industries, 2012, 25, 761-762.	3.3	2
106	Fugitive emissions in chemical processes: The assessment and prevention based on inherent and add-on approaches. Journal of Loss Prevention in the Process Industries, 2012, 25, 820-829.	3.3	18
107	Dust explosion risk moderation for flocculent dusts. Journal of Loss Prevention in the Process Industries, 2012, 25, 862-869.	3.3	45
108	Review of the Explosibility of Nontraditional Dusts. Industrial & Engineering Chemistry Research, 2012, 51, 7651-7655.	3.7	43

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109	Dynamic risk analysis using bow-tie approach. Reliability Engineering and System Safety, 2012, 104, 36-44.	8.9	280
110	Prevention in the chemical and process industries: Future directions. Journal of Loss Prevention in the Process Industries, 2012, 25, 227-231.	3.3	53
111	Accident modeling approach for safety assessment in an LNG processing facility. Journal of Loss Prevention in the Process Industries, 2012, 25, 414-423.	3.3	70
112	Are classical process safety concepts relevant to nanotechnology applications?. Journal of Physics: Conference Series, 2011, 304, 012071.	0.4	13
113	Fault and Event Tree Analyses for Process Systems Risk Analysis: Uncertainty Handling Formulations. Risk Analysis, 2011, 31, 86-107.	2.7	182
114	An analysis of CSB investigation reports concerning the hierarchy of controls. Process Safety Progress, 2011, 30, 261-265.	1.0	23
115	SHIPP methodology: Predictive accident modeling approach. Part II. Validation with case study. Chemical Engineering Research and Design, 2011, 89, 75-88.	5.6	88
116	SHIPP methodology: Predictive accident modeling approach. Part I: Methodology and model description. Chemical Engineering Research and Design, 2011, 89, 151-164.	5.6	150
117	Safety analysis in process facilities: Comparison of fault tree and Bayesian network approaches. Reliability Engineering and System Safety, 2011, 96, 925-932.	8.9	552
118	Dust explosion causation, prevention and mitigation: An overview. Journal of Chemical Health and Safety, 2010, 17, 15-28.	2.1	186
119	Effectiveness of dust dispersion in the 20-L Siwek chamber. Journal of Loss Prevention in the Process Industries, 2010, 23, 46-59.	3.3	86
120	Prevention and mitigation of dust and hybrid mixture explosions. Process Safety Progress, 2010, 29, 17-21.	1.0	55
121	ExpHAZOP+: Knowledge-based expert system to conduct automated HAZOP analysis. Journal of Loss Prevention in the Process Industries, 2009, 22, 373-380.	3.3	26
122	Application of inherent safety principles to dust explosion prevention and mitigation. Chemical Engineering Research and Design, 2009, 87, 35-39.	5.6	129
123	Handling data uncertainties in event tree analysis. Chemical Engineering Research and Design, 2009, 87, 283-292.	5.6	90
124	Fatigue reliability analysis of deep water rigid marine risers associated with Morison-type wave loading. Stochastic Environmental Research and Risk Assessment, 2008, 22, 379-390.	4.0	23
125	Safety assessment in plant layout design using indexing approach: Implementing inherent safety perspective. Journal of Hazardous Materials, 2008, 160, 100-109.	12.4	83
126	Safety assessment in plant layout design using indexing approach: Implementing inherent safety perspective. Journal of Hazardous Materials, 2008, 160, 110-121.	12.4	75

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127	Modeling of BP Texas City refinery incident. Journal of Loss Prevention in the Process Industries, 2007, 20, 387-395.	3.3	44
128	Moderation of dust explosions. Journal of Loss Prevention in the Process Industries, 2007, 20, 675-687.	3.3	81
129	A model for estimating the probability of missile impact: Missiles originating from bursting horizontal cylindrical vessels. Process Safety Progress, 2007, 26, 129-139.	1.0	34
130	Incorporation of inherent safety principles in process safety management. Process Safety Progress, 2007, 26, 333-346.	1.0	73
131	Explosibility parameters for mixtures of pulverized fuel and ash. Journal of Loss Prevention in the Process Industries, 2006, 19, 142-148.	3.3	12
132	Solid inertants and their use in dust explosion prevention and mitigation. Journal of Loss Prevention in the Process Industries, 2006, 19, 161-173.	3.3	158
133	HEPI: A new tool for human error probability calculation for offshore operation. Safety Science, 2006, 44, 313-334.	4.9	83
134	Dust explosion hazard of pulverized fuel carry-over. Journal of Hazardous Materials, 2005, 122, 23-30.	12.4	27
135	I2SI: A comprehensive quantitative tool for inherent safety and cost evaluation. Journal of Loss Prevention in the Process Industries, 2005, 18, 310-326.	3.3	145
136	Revised fire consequence models for offshore quantitative risk assessment. Journal of Loss Prevention in the Process Industries, 2005, 18, 443-454.	3.3	59
137	Determination of human error probabilities for offshore platform musters. Journal of Loss Prevention in the Process Industries, 2005, 18, 488-501.	3.3	90
138	Integrated inherent safety index (I2SI): A tool for inherent safety evaluation. Process Safety Progress, 2004, 23, 136-148.	1.0	157
139	An inherent safety-based incident investigation methodology. Process Safety Progress, 2004, 23, 197-205.	1.0	35
140	An investigation of iron sulphide dust minimum ignition temperatures. Journal of Hazardous Materials, 2003, 97, 1-9.	12.4	30
141	Evaluation of available indices for inherently safer design options. Process Safety Progress, 2003, 22, 83-97.	1.0	53
142	How to Make Inherent Safety Practice a Reality. Canadian Journal of Chemical Engineering, 2003, 81, 2-16.	1.7	133
143	Inherent safety in offshore oil and gas activities: a review of the present status and future directions. Journal of Loss Prevention in the Process Industries, 2002, 15, 279-289.	3.3	122
144	The influence of injector design on the decay of pre-ignition turbulence in a spherical explosion chamber. Journal of Loss Prevention in the Process Industries, 2001, 14, 269-282.	3.3	27

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145	Inerting of coal dust explosions in laboratory- and intermediate-scale chambers. Fuel, 2001, 80, 1593-1602.	6.4	42
146	Effect of Inerts on Layer Ignition Temperatures of Coal Dust. Combustion and Flame, 1998, 114, 41-53.	5.2	38
147	Dust explosibility characteristics of azide-based gas generants. Journal of Loss Prevention in the Process Industries, 1997, 10, 101-111.	3.3	8
148	Factors influencing the suppression of coal dust explosions. Fuel, 1997, 76, 663-670.	6.4	63
149	A comparison of experimental methods to determine the minimum explosible concentration of dusts. Fuel, 1996, 75, 654-658.	6.4	41
150	The ignitability of coal dust-air and methane-coal dust-air mixtures. Fuel, 1993, 72, 671-679.	6.4	81
151	Explosion hazards in underground coal mines. Toxicological and Environmental Chemistry, 1993, 40, 189-199.	1.2	9
152	Dust explosion prevention by addition of thermal inhibitors. Plant/Operations Progress, 1992, 11, 166-173.	0.3	12
153	Effectiveness of various rock dusts as agents of coal dust inerting. Journal of Loss Prevention in the Process Industries, 1992, 5, 196-199.	3.3	21
154	Laboratory investigation of the dust explosibility characteristics of three Nova Scotia coals. Journal of Loss Prevention in the Process Industries, 1991, 4, 102-109.	3.3	35
155	Effects of methane admixture, particle size and volatile content on the dolomite inerting requirements of coal dust. Journal of Hazardous Materials, 1991, 27, 187-203.	12.4	39
156	Process Plants. , 0, , .		67
157	The fire hazard potential of thermally thin cellulose nonwovens with different overlap configurations. Textile Reseach Journal, 0, , 004051752211108.	2.2	0